# LARGE SCALE DEVELOPMENT PARKING LOT EXPANSION FOR: NORTHWEST ARKANSAS TOYOTA

### <u>OWNER</u>

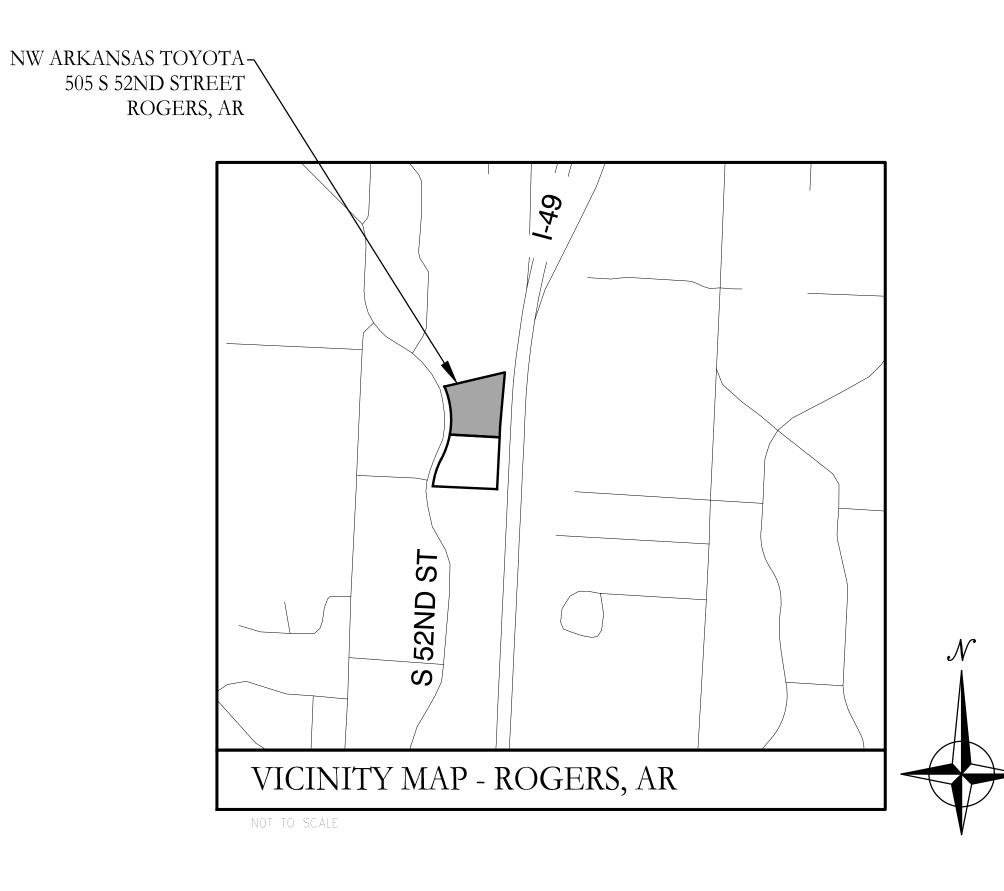
LL ARK PROPERTIES, LLC 3701 ALABAMA AVENUE SOUTH ST. LOUIS PARK, MN 55416

### DESIGNERS:

SITE ENGINEER & SURVEYOR: GARNAT ENGINEERING, LLC PO BOX 116 BENTON, AR 72015

LANDSCAPE ARCHITECT:
CHAD M. OPPENHUIZEN, LLA #5064

# ROGERS, ARKANSAS

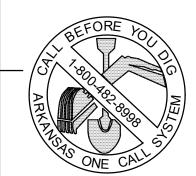


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### CONTRACTOR NOTICE:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES AND/OR STRUCTURES SHOWN ON THESE DRAWINGS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN HERE IN THESE DRAWINGS. WE ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THEIR DEPICTED LOCATIONS ON THESE DRAWINGS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN AND ALL OTHER UTILITIES PRESENT OR NOT SHOWN ON THESE DRAWINGS BY VERIFICATION OF ALL UTILITY LOCATIONS PRIOR TO BEGINNING THEIR RESPECTIVE AREAS OF WORK.

### CONTRACTOR SAFETY NOTICE:

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOBSITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORK HOURS.

THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF SAFETY MEASURES IN OR NEAR THE CONSTRUCTION SITE.

# SITE DATA:

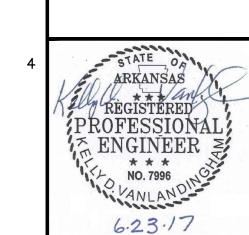
SITE AREA: 4.09 ACRES (LOT 5A METRO PARK NORTH, SEE LEGAL)

ZONING CLASSIFICATION: C-4 COMMERCIAL

ADDRESS: 505 S 52ND STREET

LEGAL DESCRIPTION: LOT 5A METRO PARK NORTH TO THE CITY OF ROGERS, BENTON COUNTY, ARKANSAS AS SHOWN ON PROPERTY LINE ADJUSTMENT PLAT BOOK 2007 PAGE 722





CONTENTS:

COVER SHEET

PROJECT NO:

6/23/2017

SHEET NO:

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G0.0

### SITE PLAN NOTES:

- 1. CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.
- 2. CONTRACTOR SHALL MATCH PROPOSED CURB AND GUTTER, CONCRETE, AND PAVEMENT TO EXISTING IN GRADE AND ALIGNMENT.
- 3. GENERAL CONTRACTOR IS TO COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION, ADJUSTMENT OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS.
- 4. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED, AS WELL AS COORDINATE WITH ANY UTILITY COMPANIES FOR APPROVED LOCATIONS AND SCHEDULING OF TIE-INS AND CONNECTIONS TO THEIR FACILITIES.
- 5. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND BE CONSTRUCTED TO THE SAME.
- 6. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM DURING CONSTRUCTION SUCH AS BUT NOT LIMITED TO: DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN EXISTING CONDITIONS.
- 7. CONTRACTOR TO REMOVE OR RELOCATE, WHEN APPLICABLE ALL EXISTING BUILDINGS, FOUNDATIONS, BASEMENTS, CONNECTING IMPROVEMENTS, DRAINPIPES, SANITARY SEWER PIPES, POWER POLES, GUY WIRES, WATER METERS AND WATER LINES, WELLS, SIDEWALKS, SIGN POLES, UNDERGROUND GAS, SEPTIC TANKS, AND ASPHALT, SHOWN AND NOT SHOWN WITHIN CONSTRUCTION LIMITS AND WHERE NEEDED, TO ALLOW FOR NEW CONSTRUCTION AS SHOWN.
- 8. CONTRACTOR SHALL FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS IN DISPOSING OF DEMOLISHED MATERIAL REMOVED FROM THIS SITE.
- 9. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPE 3H:1V OR STEEPER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- 10. DIMENSIONS SHOWN ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.
- 11. CONTRACTOR TO ADJUST ALL EXISTING AND PROPOSED MANHOLES, VALVE BOXES, ETC. TO FINISH GRADE
- 12. DESIGN AND ALIGNMENT OF UNDERGROUND TELEPHONE, TV CABLE, GAS AND ELECTRIC SERVICES SHALL BE PROVIDED BY THE INDIVIDUAL UTILITIES AND ARE NOT NECESSARILY SHOWN WITH THESE PLANS. CONTRACTOR SHALL PROVIDE CONDUITS SIZED TO ACCOMMODATE UTILITY ROUTING WITH PULL STRINGS WHERE NECESSARY.
- 13. CONTRACTOR TO PROVIDE ALL NECESSARY APPURTENANCES NECESSARY FOR COMPLETE UTILITY SERVICES WHICH ARE NOT PROVIDED BY THE UTILITY COMPANY.
- 14. ALL DISTURBED AREAS NOT RECEIVING PAVEMENT OR LANDSCAPING SHALL HAVE VEGETATION ESTABLISHED AT TIME OF FINAL INSPECTION.

### SITE UTILITY NOTES:

- 1. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- 2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES' INSPECTORS 72 HOURS PRIOR TO CONNECTING TO ANY EXISTING LINES.
- 3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4'-0" COVER ON ALL WATERLINES.
- 4. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS AND TO BE 0'-6" ABOVE FINISHED GROUND ELEVATIONS.
- 5. DRAWINGS TO NOT NECESSARILY SHOW ALL EXISTING UTILITIES.
- 6. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW UTILITIES.
- 7. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AND AT NO COST TO THE OWNER.
- 8. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF BENTONVILLE WATER & SEWER DEPARTMENT WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
- 9. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATED ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- 10. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO THE FINAL CONNECTION OF SERVICE.
- 11. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
- 12. CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY COMPANIES AND THE OWNERS INSPECTING AUTHORITIES.
- 13. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED TO ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE OF CRITERIA FOR OSHA.
- 14. CONTRACTOR TO COORDINATE STREET CLOSINGS REQUIRED BY UTILITY CROSSINGS WITH CITY OF BENTONVILLE STREET DEPARTMENT. TRAFFIC CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

### SITE GRADING NOTES:

- 1. ALL CUT OR FILL SLOPES SHALL BE 3H:1V OR FLATTER UNLESS OTHERWISE NOTED.
- 2. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISHED GRADE. LIDS SHALL BE LABELED "BENTONVILLE FISH LID".
- 3. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- 4. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- 5. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- 6. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT IN TO INVERT OUT.
- 7. CONTRACTOR SHALL LOCATE AND IDENTIFY EXISTING UTILITIES THAT ARE TO REMAIN AND PROTECT FROM DAMAGE. INSTALL STORM WATER POLLUTION PREVENTION MEASURES IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN AND NPDES REQUIREMENTS. STRIP AND STOCKPILE TOPSOIL.
- 8. REMOVE FROM SITE AND DISPOSE OF MATERIAL ENCOUNTERED IN GRADING OPERATIONS THAT, IN OPINION OF THE ENGINEER, IS UNSUITABLE OR UNDESIRABLE FOR BACKFILLING OR SUBGRADE PURPOSES. DISPOSE OF IN A MANNER SATISFACTORY TO ENGINEER. BACKFILL UNDERCUT AREAS WITH LAYERS OF SUITABLE MATERIAL AND COMPACT AS SPECIFIED HEREIN.
- 9. AREAS EXPOSED BY EXCAVATION OR STRIPPING AND ON WHICH SUBGRADE PREPARATIONS ARE TO BE PERFORMED SHALL BE SCARIFIED TO MINIMUM DEPTH OF 0'-8" AND COMPACTED TO MINIMUM OF 95% OPTIMUM DENSITY. PROOF ROLL THESE AREAS TO DETECT INSUFFICIENT COMPACTION.
- 10. UPON PARTIAL OR FINAL COMPLETION OF GRADING WORK, SPREAD TOPSOIL, SEED, FERTILIZER, AND MULCH IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE STORM WATER POLLUTION PREVENTION PLAN.
- 11. PRIOR TO PLACING FILL IN LOW AREAS, SUCH AS PREVIOUSLY EXISTING CREEKS, PONDS, OR LAKES, PERFORM FOLLOWING PROCEDURES:
- 11.1. DRAIN WATER OUT BY GRAVITY WITH DITCH HAVING FLOW LINE LOWER THAN LOWEST ELEVATION IN LOW AREA. IF DRAINAGE CANNOT BE PERFORMED BY GRAVITY DITCH, USE ADEQUATE PUMP TO OBTAIN THE SAME RESULTS.
- 11.2. AFTER DRAINAGE OF LOW AREA IS COMPLETE, REMOVE MULCH, MUD DEBRIS, AND OTHER UNSUITABLE MATERIAL BY USING ACCEPTABLE EQUIPMENT AND METHODS THAT WILL KEEP NATURAL SOILS UNDERLYING LOW AREA DRY AND UNDISTURBED.

Cess | DATE | REVISION | 150 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 |

**ngineering, LLC**8) Ph (501) 408-4650
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GarNat Engir
P.O. Box 116 (72018)
2909 Military Road

FOR: NYOTA SAS

A NEW FACILITY FOI NW ARKANSAS TOYC

ARKANSAS

REGISTERED

PROFESSIONAL

ENGINEER

No. 7996

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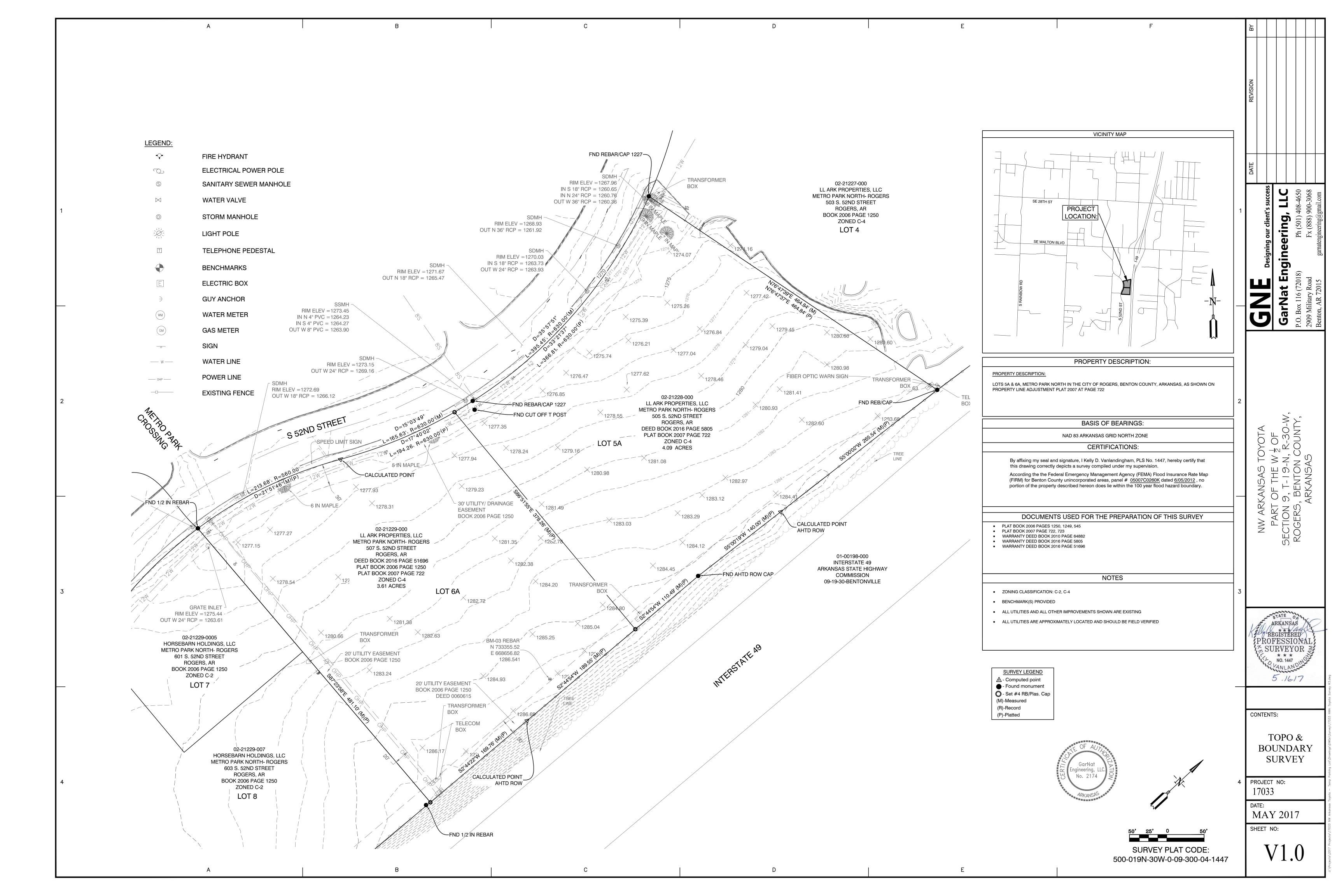
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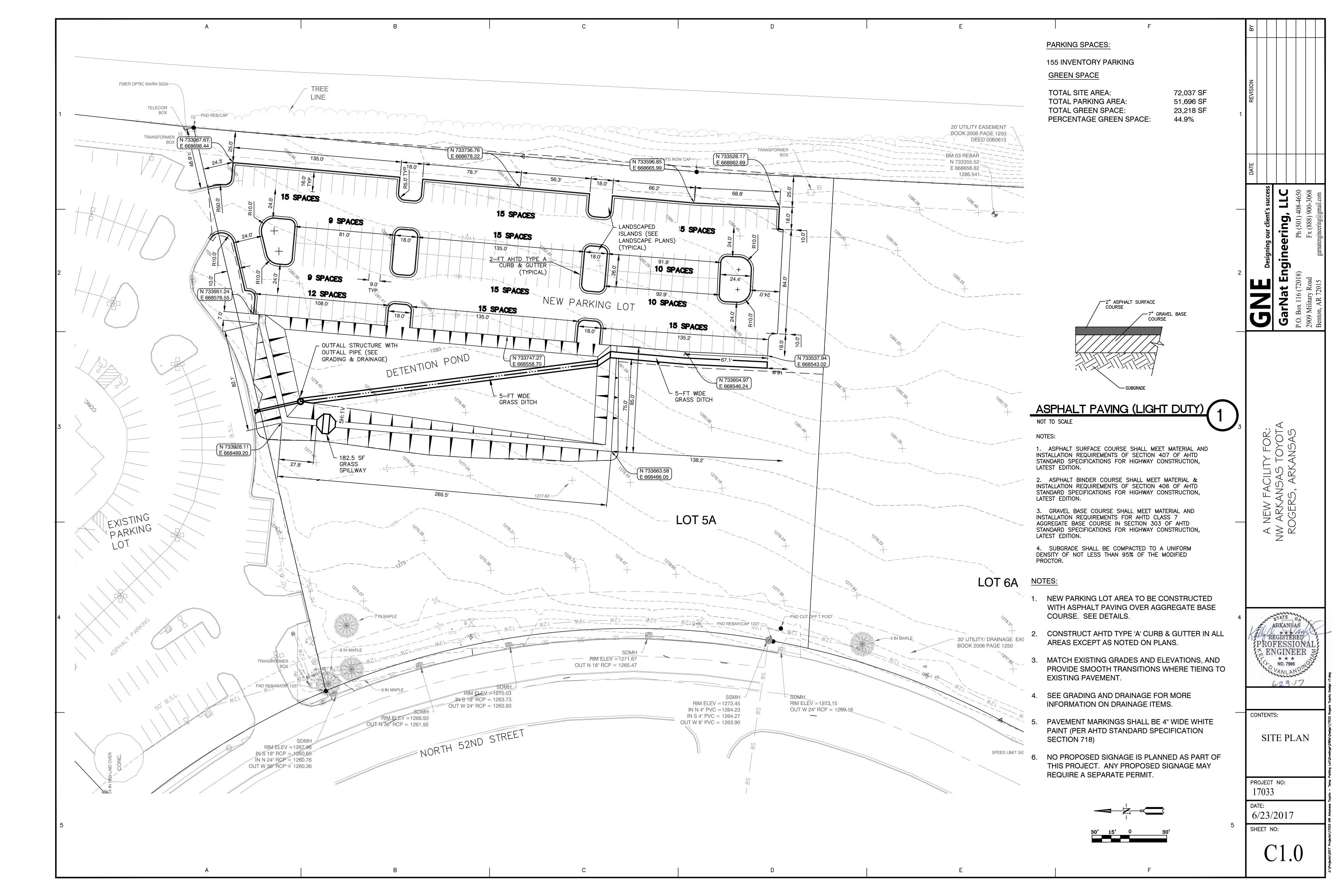
GENERAL NOTES

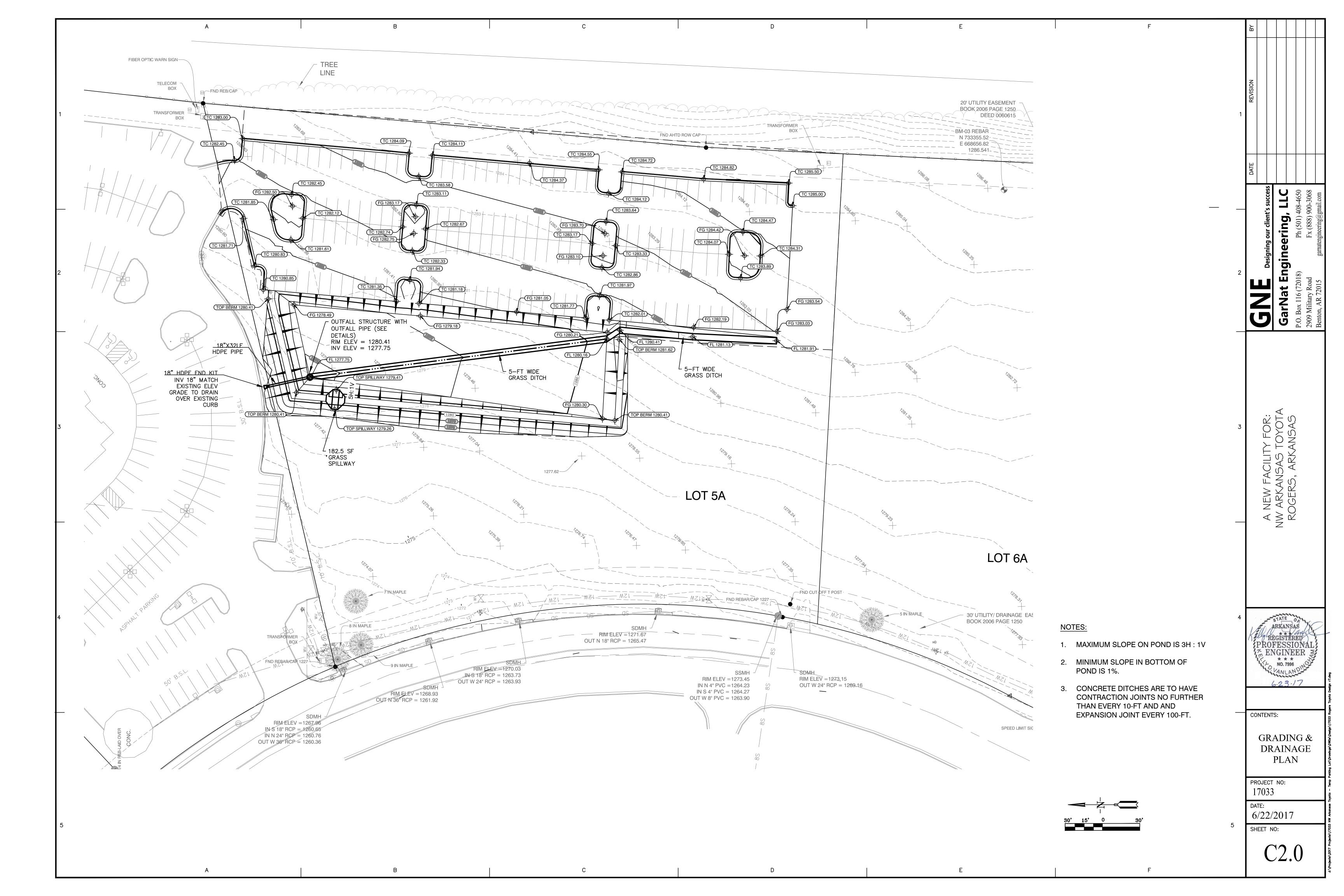
PROJECT NO: 17033

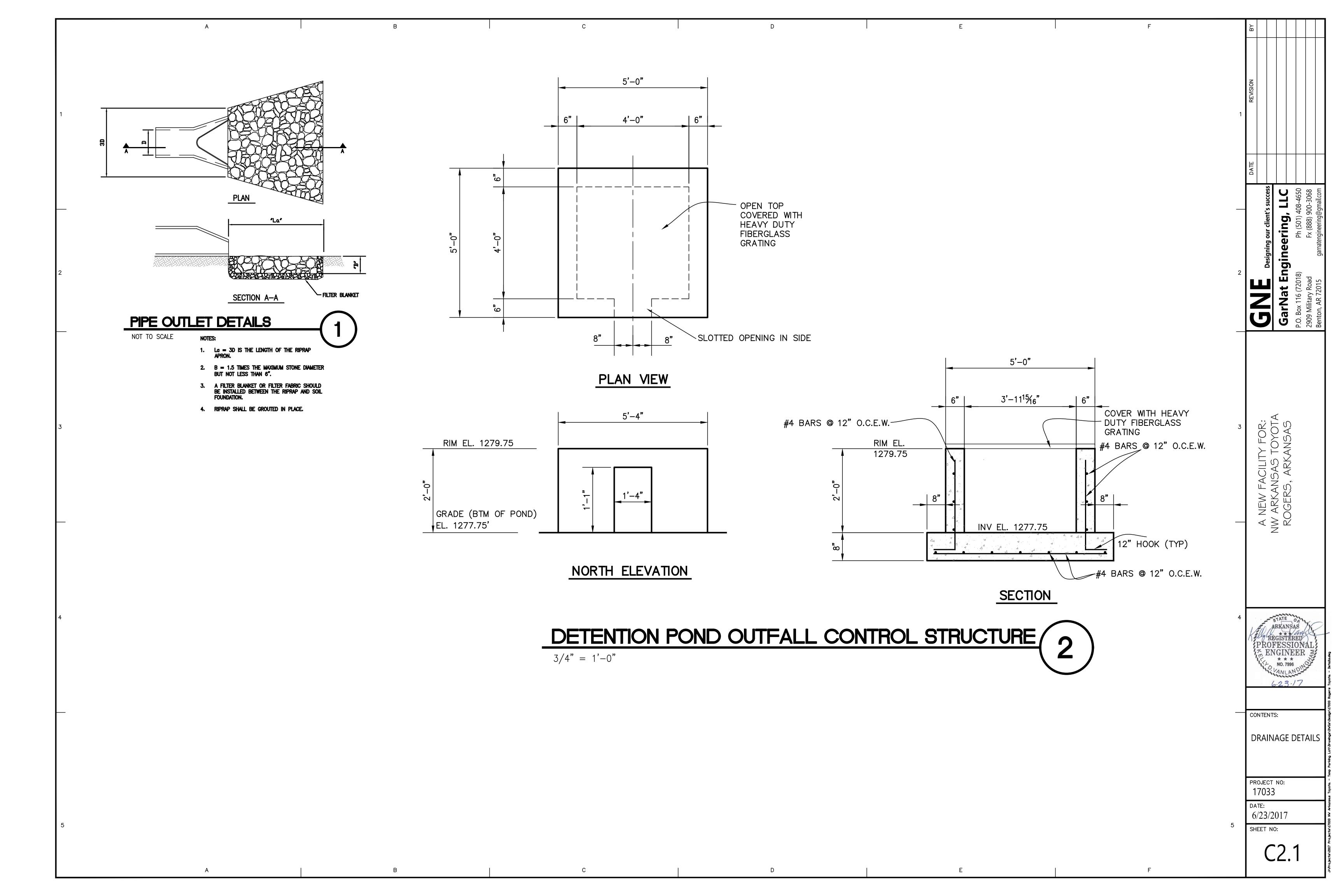
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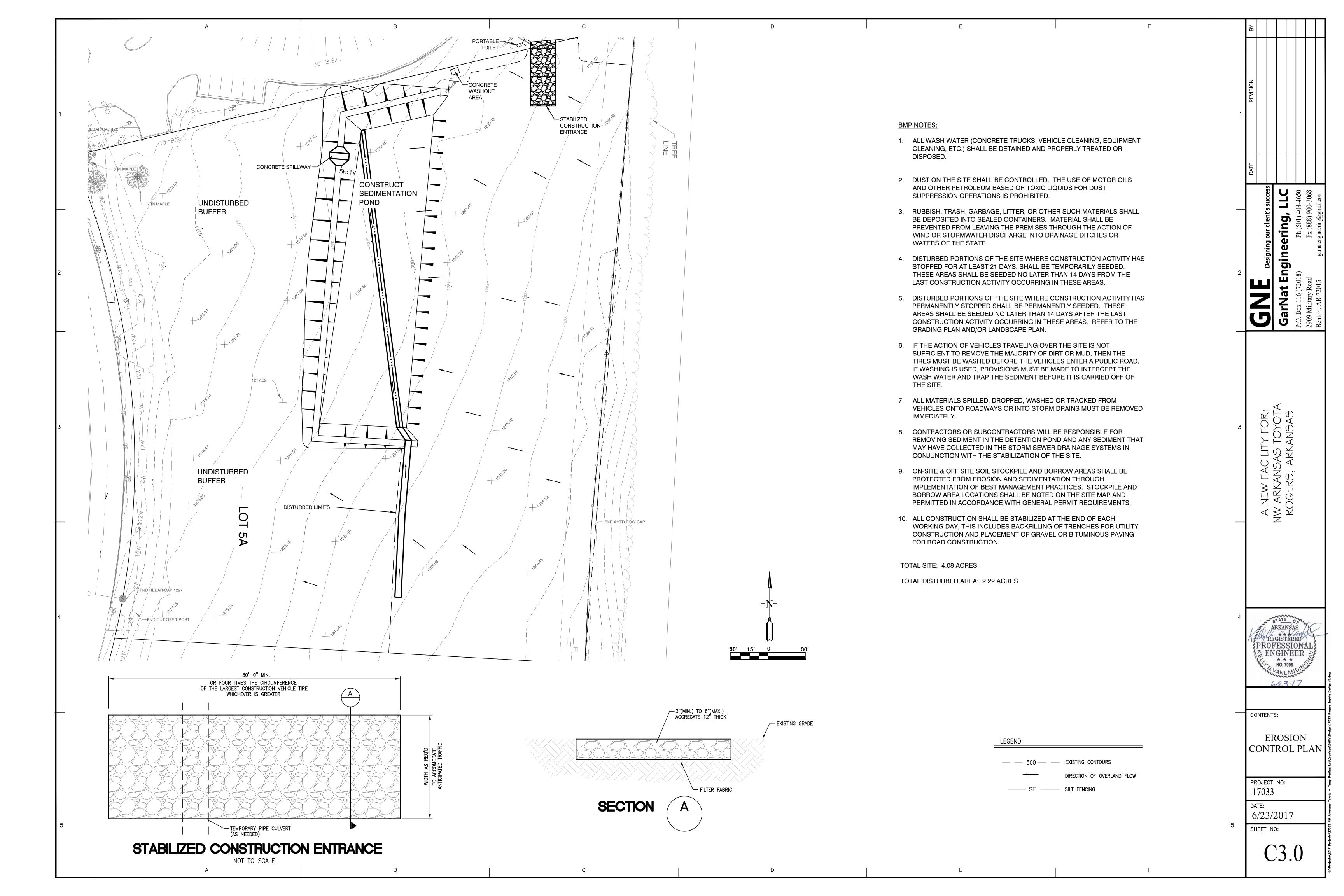
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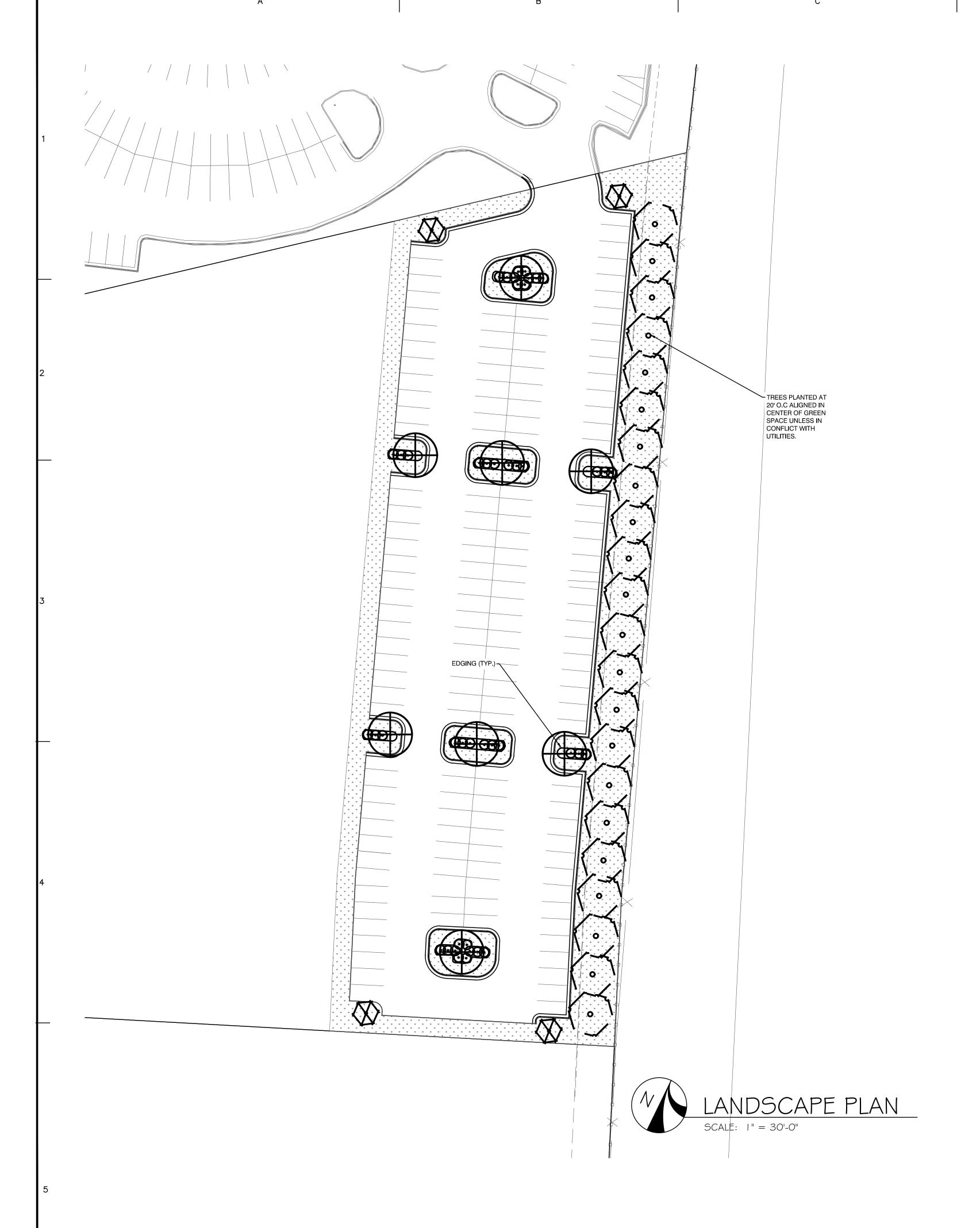












# LEGEND



# PLANTING NOTES:

. ALL PLANTING AREAS SHALL BE IRRIGATED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.

2. QUANTITIES SHOWN ARE FOR CONVENIENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THEIR OWN COUNT.

3. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" SHREDDED HARDWOOD OR CYPRESS MULCH.

4. ALL SHRUBS AND TREES SHALL RECEIVE PLANTING BACKFILL OF 2/3 TOPSOIL AND 1/3 COMPOST BY VOLUME AND 2 LBS OF 14-14-14 TIMED-RELEASE FERTILIZER PER CUBIC YARD OF BACKFILL.

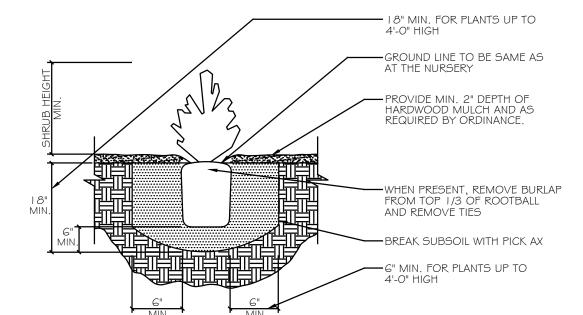
5. ALL BEDS INSIDE LAWN AREAS TO BE EDGED WITH 4" PAINTED STEEL EDGING

6. ADD MININUM OF 2" OF TOP SOIL TO ALL SODDED AREAS TO CREATE A SMOOTH

FINISH GRADE. 7. ALL PLANT MATERIAL TO BE THOROUGHLY WATERED IMMEDIATELY AFTER PLANTING.

- 8. ALL NON-PAVED AREAS NOT SHOWN AS PLANTING BEDS SHALL BE SODDED WITH BERMUDA SOD. CONTRACTOR SHALL BE RESPONSIBLE TO CALCULATE ALL SOD
- 9. IMMEDIATELY REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT.
- 10. ALL PROPOSED TREES SHALL BE A MINIMUM OF 5' FROM ALL UTILITIES.
- II. ALL TREES NEED TO BE RE-EVALUATED ANNUALLY & THE CONDITIONS, HEALTH, VITALITY, AND ALL LIABILITY ISSUES MANAGED ON A REGULAR BASIS.

12. PLANT STORAGE TO BE LOCATED OUT OF VEHICULAR USE AREAS \$ NEAR A WATERING SYSTEM TO OPTIMIZE SURVIVAL



NOTE: CROWN OF TREE TO BE 2" ABOVE FINISH GRADE

OUSTSIDE OF ROOTBALL

NOTE: PROVIDE FERTILOME FOOD STIMULATOR IN EACH TREE PIT.

NOTES:

1. PROVIDE WEED CONTROL AND/OR FERTILIZER AS SPECIFIED BELOW.

2. WEED CONTROL AND FERTILIZER MAY BE APPLIED AT A LATER DATE TO COMPLY WITH SEASONAL CONDITIONS AND THE GROWING PERIOD.

3. PROVIDE AGRIFORM TABLETS AS PER MANUFACTURERS RECOMMENDATIONS.

4. PROVIDE HOMOGENOUS BACKFILL PLANTING MIXTURE OF 3:1 RATIO TOPSOIL TO PEATMOSS AND/OR OTHER APPROVED SOIL AMENDMENTS.

5. PROVIDE FERTILOME ROOT STIMULATOR OR APPROVED EQUAL IN PITS.

6. APPLY BALAN PREEMERGENT WEED CONTROL OR APPROVED EQUAL TREATMENT ON ALL SHRUB AND GROUNDCOVER BEDS.

# SHRUB PLANTING DETAIL

# AUTOMATIC IRRIGATION NOTE:

I. LARGE SODDED AREAS TO HAVE AUTOMATIC IRRIGATION SYSTEM PROVIDING 100% COVERAGE. TO ALLOW FOR FUTURE DEVELOPMENT OF THESE AREAS, SPRINKLER HEADS SHALL BE LOCATED AROUND PERIMETER OF AREA. IF 100% COVERAGE CANNOT BE OBTAINED IN THIS MANNER, CONTACT LANDSCAPE ARCHITECT TO COORDINATE REVISIONS.

2. GENERAL CONTRACTOR SHALL PROVIDE SCHEDULE 40 PVC SLEEVING 6". SLEEVING SHALL BE BURIED A MIN. 18" BELOW GRADE AND THE ENDS OF THE SLEEVES CLEARLY MARKED BY THE GENERAL CONTRACTOR AND SHALL EXTEND OUT A MIN. 18" PAST ANY CURB OR PAVING.

3. CONTRACTOR TO ADD IRRIGATION METER AND BACKFLOW PER CITY/UTILITY REQUIREMENTS COORDIANTE LOCATION WITH UTILITY AND GENERAL CONTRACTOR

4. SODDED AREAS TO BE ON SEPARATE ZONES FROM SHRUB BEDS

5. EACH TREE TO BE IRRIGATED WITH AT LEAST (1)

6. COORDINATE LOCATION OF IRRIGATION CONTROLLER WITH GENERAL CONTRACTOR AND/OR OWNER

7. CONTRACTOR TO PROVIDE "AS BUILT DRAWINGS" FOR IRRIGATION SYSTEM SHOWING LOCATION OF ALL KEY ELEMENTS INCLUDING VALVES, MAINLINE, SLEEVES, AND HEADS.

### -PLACE TIES ABOVE LOWEST SCAFFOLD BRANCHES NO. 10 GALV. WIRE THRU 1/2" RUBBER HOSE. TWIST OR ANCHOR WIRE TO STAKE. MIN. 2 PER STAKE -6'-0" GREEN STEEL PREPAINTED T-POST WITH 6" FLOURESCENT WHITE/SILVER TOP TREE STAKE, MIN. 3 REQUIRED AT 120 DEGREES AROUND TREE —6" SURVEYORS TAPE ON ALL GUY WIRES (TYP.) -MULCH MIN. 3" PULL MULCH BACK 2" FROM BASE OF TRUNK 4' DIAMETER MULCH -REMOVE BURLAP FROM TOP OF ROOTBALL AND REMOVE ALL TIES. FOLD BACK BURLAP AT TOP OF BALL. WHEN PRESENT, REMOVE ALL SYNTHETIC BURLAP. AGRIFORM TABLET AS PER SPECIFICATIONS MAX. 6" BELOW SURFACE -COMPACTED SUBGRADE PER PLANTING NOTES —SLASH BURLAP THREE TIMES -I 2" COMPACTED BACKFILL OR UNDISTURBED SOIL PER LOCATION BREAK SUBSOIL WITH PICK AX NOTE; PLACE ALL PVC LATERIALS

# **GUARANTEE:**

. THE DEVELOPER SHALL REPLACE ALL NEW PLANT MATERIALS THAT DIE DURING THE PERIOD FROM INITIAL INSTALLATION. DEVELOPER SHALL ALSO REPLACE ALL DEAD PLANT MATERIALS ON THE EXISTING DEALERSHIP AS PART OF THIS LARGE SCALE DEVELOPMENT. REPLACEMENTS SHALL BE PLANTED MATERIALS OF THE KIND AND SIZE ACCORDANCE WITH THE CITY LANDSCAPE ORDINANCE.

2. CONTRACTOR TO GUARANTEE PLANT MATERIAL FOR 1 YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND REPLACE WITH PLANT MATERIAL OF SAME AND KIND AS ORGINAL.

TREE PLANTING DETAIL

I 1/2 THE BALL SIZE

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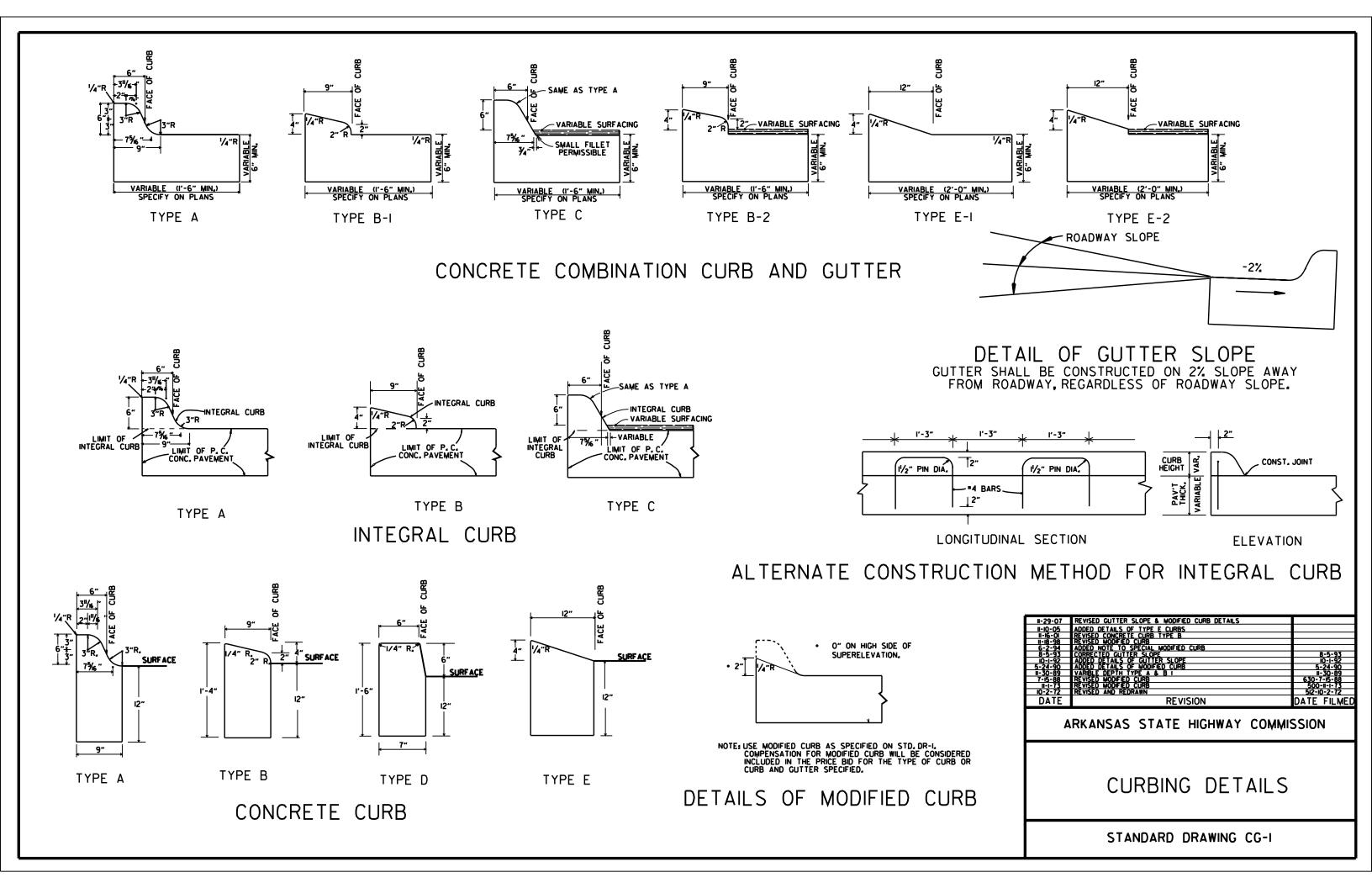
CONTENTS:

LANDSCAPE **PLAN** 

PROJECT NO: 17033

JUNE 23, 2017

SHEET NO:



INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-I, SM-2 OR SM-4)

AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF INNCH, STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF HOPE PIPE.

### MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

BETWEEN PIPES
1'-6"
2'-0"
2′-6″
3′-0″
3′-6″
4'-0"

### MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

	TRENCH WIDTH (FEET)	
PIPE DIAMETER	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4′-6″	4′-6″
24"	5′-0″	6'-0"
30"	5′-6″	7′-6″
36"	6′-0″	9'-0"
42"	7′-0″	10'-6"
48"	8'-0"	12'-0"

18" MIN. (18" - 30" DIAMETERS) 24" MIN. (36" - 48" DIAMETERS)

MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

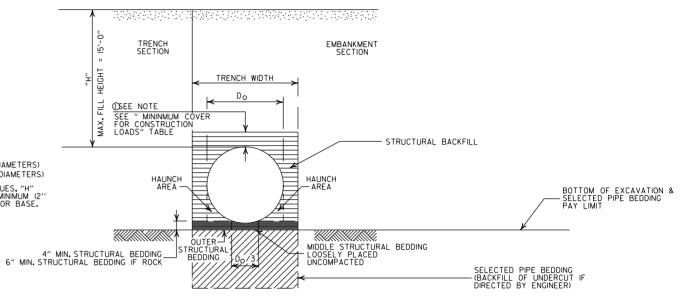
### MINIMUM COVER FOR CONSTRUCTION LOADS

	Ø MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
PIPE DIAMETER	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-II0.0 (KIPS)	IIO.0-175.0 (KIPS)
36" OR LESS	2'-0"	2'-6"	3′-0″	3′-0″
42" OR GREATER	3'-0"	3′-0″	3′-6″	4'-0"

MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.

### GENERAL NOTES

- I. PIPE SHALL CONFORM TO AASHTO M294, TYPE S. INSTALLATION SHALL CONFROM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
- 2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
- 3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
- 4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
- 5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
- 6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FORM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
- 7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
- 8. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
- 9. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.



### TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

I, STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

### CONSTRUCTION SEQUENCE

- I. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
- 2. INSTALL PIPE TO GRADE.
- 3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
- 4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
- 5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND

### - LEGEND -

H = FILL HEIGHT (FT.) 

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

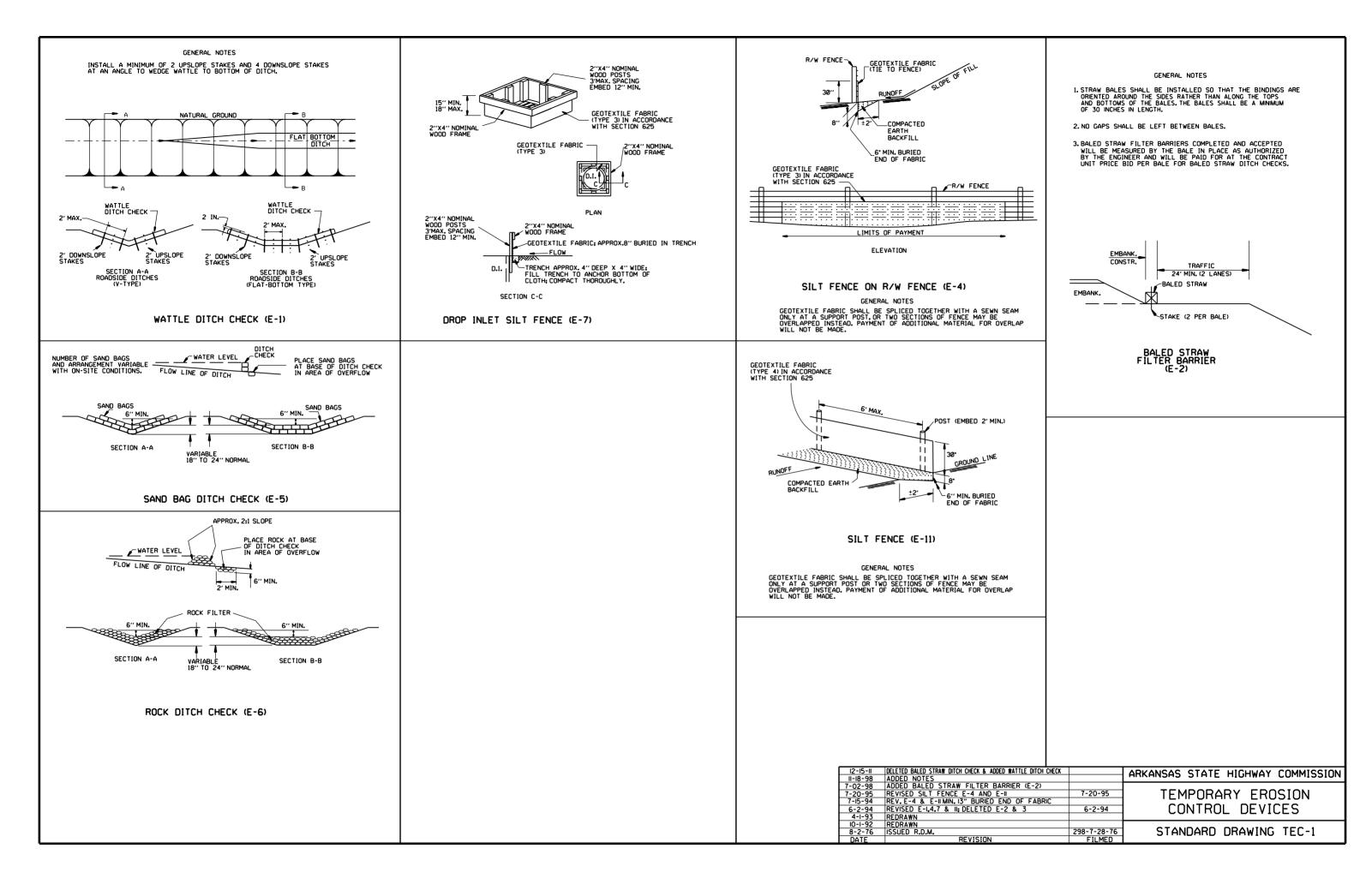
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		-	
2-27-14	REVISED GENERAL NOTE I.		
12-15-11	REVISED GENERAL NOTES & MINIMUM COVER NOTE		
11-17-10	ISSUED		
DATE	REVISION	DATE	FILMED

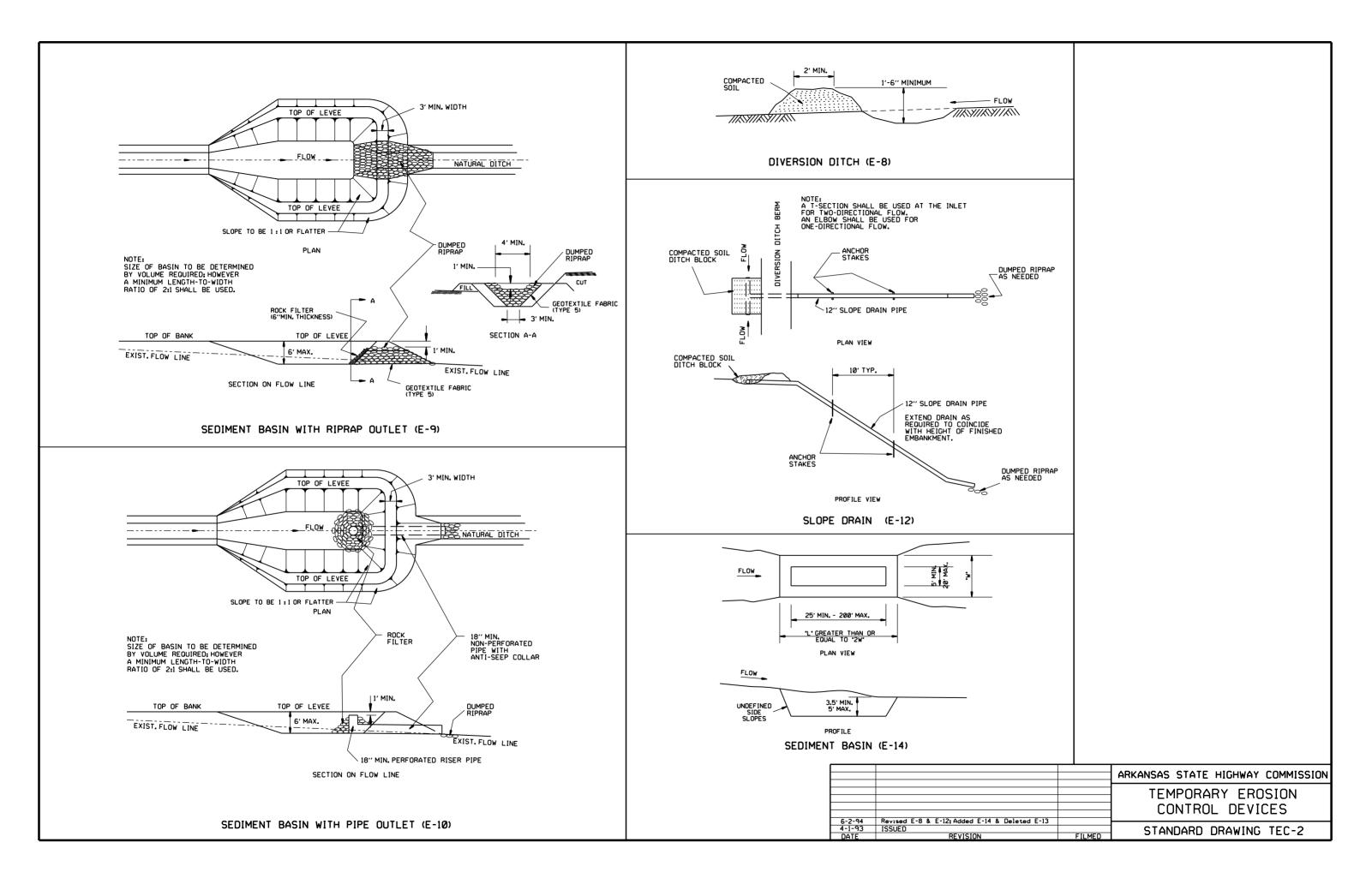
ARKANSAS STATE HIGHWAY COMMISSION PLASTIC PIPE CULVERT

(HIGH DENSITY POLYETHYLENE)

STANDARD DRAWING PCP-1





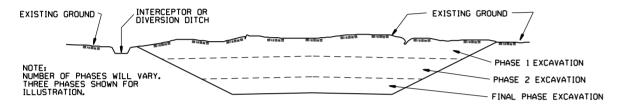


### CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

- 1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
- 2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



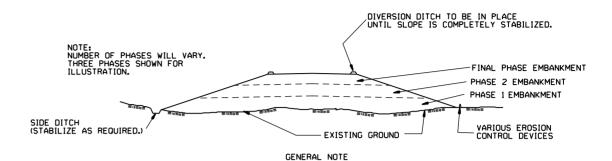
### GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

### CONSTRUCTION SEQUENCE

- 1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
- 2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
- 3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
- 4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

### **EMBANKMENT**



ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

### CONSTRUCTION SEQUENCE

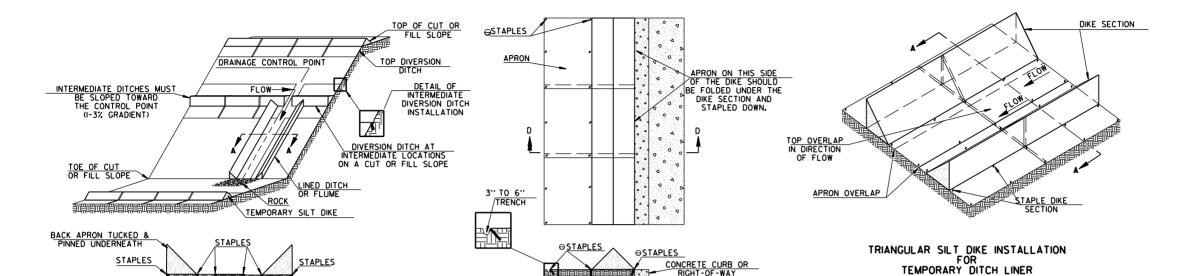
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.

2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.

3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.

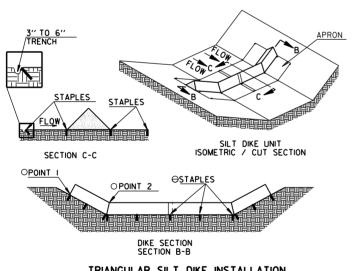
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

			ARKANSAS STATE HIGHWAY COMMISSION
			TEMPORARY EROSION
			CONTROL DEVICES
11-03-94	CORRECTED SPELLING		
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### TRIANGULAR SILT DIKE INSTALLATION FOR DIVERSION DITCH AND/OR DITCH LINER

TEMPORARY DITCH LINER SECTION A-A

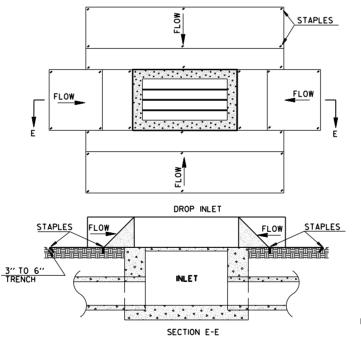


### TRIANGULAR SILT DIKE INSTALLATION ROADWAY DITCH OR DRAINAGE DITCH

- O POINT "I" MUST BE HIGHER THAN POINT "2" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS. ⊖ STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT AS SHOWN ON THE DIAGRAM.
- TRIANGULAR SILT DIKE INSTALLATION FOR DROP INLETS

### TRIANGULAR SILT DIKE INSTALLATION CONTINUOUS BARRIER

SECTION D-D

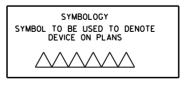


### GENERAL NOTES

- I. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, AND MAINTAINING THE TRIANGULAR SILT DIKE, THE DIKES SHALL BE USED AS A CONTINUOUS LINE BARRIER AT THE TOE OF SLOPE OR ACROSS THE ROADWAY DITCH TO CONTAIN SEDIMENT AND MINIMIZE EROSION, OR AS DIRECTED BY THE ENGINEER, THESE DIKES SHALL BE INSTALLED AND LOCATED AS SOON AS CONSTRUCTION WILL ALLOW OR AS DIRECTED BY THE ENGINEER.
- 2. TRIANGULAR SILT DIKE SHALL BE TRIANGULAR SHAPED HAVING A HEIGHT OF AT LEAST 8" TO 10" IN THE CENTER WITH EQUAL SIDES AND A 16" TO 20" BASE. THE TRIANGULAR SHAPED INNER MATERIAL SHALL BE URETHANE FOAM. THE OUTER COVER SHALL BE A WOVEN GEOTEXTILE FABRIC PLACED AROUND THE INNER MATERIAL & ALLOWED TO EXTEND BEYOND BOTH SIDES OF THE TRIANGLE 24" TO 36". THIS FABRIC SHOULD BE MILDEW RESISTANT, ROT-PROOF AND RESISTANT TO HEAT AND ULTRAVIOLET RADIATION MEETING REQUIREMENTS FOR SEDIMENT CONTROL IN AASHTO M288. THE DIKES SHALL BE ATTACHED TO THE GROUND WITH WIRE STAPLES. THE STAPLES SHALL BE NO. II GAUGE WIRE AND BE AT LEAST 6" TO 8" LONG. STAPLES SHALL BE PLACED AS SHOWN ON THESE DETAILS.

THE CONTRACTOR SHALL INSPECT ALL DIKES AFTER EACH RAINFALL EVENT OF AT LEAST 0.5" OR GREATER, ANY DEFICIENCIES OR DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR. ACCUMULATED SILT OR DEBRIS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. IF THE DIKES ARE DAMAGED OR INADVERTENTLY MOVED DURING THE SILT REMOVAL PROCESS, THE CONTRACTOR SHALL IMMEDIATELY REPLACE AFTER DAMAGE OCCURS.

3. ACCEPTED TRIANGULAR SILT DIKE, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR TRIANGULAR SILT DIKE, PRICE BID WILL INCLUDE THE COST OF FURNISHING THE DIKES, INSTALLING, MAINTAINING AND REMOVAL WHEN DIRECTED BY THE ENGINEER.



NOTE: SILT DIKE SHOULD ONLY BE USED FOR DROP INLETS IN SUMP LOCATIONS.

			ARKANSAS STATE HIGHWAY COMMISSION	
			TEMPORARY EROSION	
			CONTROL DEVICES	
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7-26-12	REVISED GENERAL NOTE 2.		0741/0455 554//1/0 756 4	
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